

Notice of Allowability

Application No.

10/602,458

Examiner

Thomas K. Pham

Applicant(s)

JOHNSON ET AL.

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 09/08/2006.
2. ☒ The allowed claim(s) is/are 1-3, 10-13 and 16-32.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

EXAMINER'S AMENDMENT

1. On page 14 line 13 in the remarks, applicants stated "Claims 24-30 depend from Claim 1 and include all of the limitation of that Claim". Thus, Examiner believed that there are typing error in claims 25-28. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Please change claims 25-28 to depend on claim 1.

Reasons for Allowance

2. Claims 1-3, 10-13 and 16-32 are allowed.
3. The following is an examiner's statement of reasons for allowance:

While Stothers et al. (U.S. Patent No. 5,768,124) discloses an adaptive control system for reducing undesired signals comprising secondary means to provide at least one secondary signal for interference with said undesired signals; adaptation means operative to adjust said at least one secondary signal using said at least one residual signal to reduce said at least one residual signal; adaptation fault detection means to detect erroneous or fault operation of the system and provide an indication of a fault; Stothers is adapting to undesired noise signals $x(n)$ for the purpose of eliminating them with the drive signal $y(n)$. Stothers does not teach generating a hedge signal with an adaptive control system to avoid adaptation to at least one characteristic of the adaptive control system, the characteristic having an effect to which adaptation would be detrimental to

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control of a plant with the adaptive control system; and other limitations related to these features in combination with the remaining elements and features of the claimed invention.

And Bozich (U.S. Patent No. 5,367,612) discloses an adaptive vibration control system suitable for controlling, generating, canceling, reducing, conditioning, or interpreting vibrations in real time. The adaptive vibration control system that senses unwanted vibrations and generates an appropriate offsetting vibration that applied to the medium at a convenient location. The offsetting vibration is transmitted through the medium, from a convenient application point, to a desired monitoring point where the source vibration is to be canceled. Bozich does not teach generating a hedge signal with an adaptive control system to avoid adaptation to at least one characteristic of the adaptive control system, the characteristic having an effect to which adaptation would be detrimental to control of a plant with the adaptive control system; and other limitations related to these features in combination with the remaining elements and features of the claimed invention.

The prior art of record fails to teach or fairly suggest to one of ordinary skill in the art at the time of the invention, in conjunction with all the other claimed limitations, a method and system for controlling a plant having all the claimed features of applicant's instant invention, specifically including: generating a hedge signal with an adaptive control system to avoid adaptation to at least one characteristic of the adaptive control system, the characteristic having an effect to which adaptation would be detrimental to control of a plant with the adaptive control system, etc., as set forth in the claims.

Also, there is no motivation to combine the Stothers reference with the Bozich reference to meet these limitations. It is for these reasons that applicant's invention defines over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Thomas Pham*; whose telephone number is (571) 272-3689, Monday to Thursday from 6:30 AM - 5:00 PM EST or contact Supervisor *Mr. Anthony Knight* at (571) 272-3687.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thomas Pham

Patent Examiner

A handwritten signature in cursive script, appearing to read 'Thuy Pham', written in black ink.

November 2, 2006